O.: I20 06739 US Customer No.: 000128

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Charles Q. Zhan et al.

Application No.

10/717,086

Filed

November 19, 2003

For

APPARATUS AND METHOD FOR IDENTIFYING

DEFECTIVE VALVES

Group No.

2863

Examiner

Xiuqin Sun

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. § 1.56, Applicant submits this statement. This submittal is made in accordance with 37 C.F.R. §§ 1.97 and 1.98 and § 609 of the Manual of Patent Examining Procedure. The patents and publications herein are listed below and on the attached Forms PTO/SB/08A & B. Copies of the listed publications are submitted herewith.

U.S. Patent No.	Inventor	<u>Date</u>
5,381,697	van der Pol	January 17, 1995
5,594,180	Carpenter et al.	January 14, 1997
5,641,891	Frankl et al.	June 24, 1997

DOCKET NO.: 120 06739US APPLICATION NO.: 10/717,086 PATENT

U.S. Patent No.	Inventor	<u>Date</u>
5,966,674	Crawford et al.	October 12, 1999
6,208,943	Randolph et al.	March 27, 2001
6,408,676	Stratton et al.	June 25, 2002
6,505,517	Eryurek et al.	January 14, 2003
6,539,315	Adams et al.	March 25, 2003
6,654,697	Eryurek et al.	November 25, 2003
6,725,167	Grumstrup et al.	April 20, 2004

Publications

Fujun He et al. "WPT-SVMs Based Approach for Fault Detection of Valves in Reciprocating Pumps", Proceedings of the American Control Conference, Anchorage, AK, May 8-10, 2002, Pp. 4566-4570.

Jiang Wanlu et al., "Applying Multiresolution Analysis for Processing of Hydraulic Pump Fault Signal", Pp. 1-5.

Wang et al., "The Fault Character of the Motors Identified Based on Wavelet Transform", November 2-5, 2003, Proceedings of the Second International Conference on Machine Learning and Cybernetics, Xi'an, Pp. 2394-2398.

Mallat et al., "Singularity Detection and Processing with Wavelets", March 1992, IEEE Transactions on Information Theory, Vol. 38, No. 2, Pp. 617-643.

Applicant hereby expressly reserves the right to swear behind the effective dates of any of the above Patents and to question the relevance and materiality of the Patents and Publications listed herein, in whole, in part, or in combination, subsequent to filing this Information Disclosure Statement.

DOCKET NO.: 120 06739US APPLICATION NO.: 10/717,086

PATENT

This Information Disclosure Statement is being transmitted after the mailing date of the first Office Action on the merits. Therefore, Applicant encloses a check in the amount of \$180.00 for the Information Disclosure Statement filing fee.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: Jun 24 2W5

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PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

JUN 2 7 2005

Sheet 1

Substitute for form 1449/PTO

(Use as many sheets as necessary)

Complete if Known			
Application Number	10/717,086		
Filing Date	November 19, 2003		
First Named Inventor	Charles Q. Zhan		
Art Unit	2863		
Examiner Name	Xiuqin Sun		
Attorney Docket Number	120 06739115		

				DOCUMENTS	
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	^{US-} 5,381,697	01/17/1995	van der Pol	
•	AB	^{US-} 5,594,180	01/14/1997	Carpenter et al.	
_	AC	^{US-} 5,641,891	06/24/1997	Frankl et al.	
	AD	^{US-} 5,966,674	10/12/1999	Crawford et al.	
	AE	^{US-} 6,208,943	03/27/2001	Randolph et al.	
	AF	^{US-} 6,408,676	06/25/2002	Stratton et al.	
	AG	^{US-} 6,505,517	01/14/2003	Eryurek et al.	
	АН	^{US-} 6,539,315	03/25/2003	Adams et al.	
-	ΑI	^{US-} 6,654,697	11/25/2003	Eryurek et al.	
	AJ	^{US-} 6,725,167	04/20/2004	Grumstrup et al.	
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ^{3 -} Number ^{4 -} Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T ⁶
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Examiner	Date	
Signature	Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)

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Complete if Known Substitute for form 1949/27 **Application Number** 10/717.086 INFORMATION DISCLOSURE **Filing Date** November 19, 2003 STATEMENT BY APPLICANT **First Named Inventor** Charles Q. Zhan Art Unit 2863 (Use as many sheets as necessary) **Examiner Name** Xiuqin Sun Attorney Docket Number Sheet 2 2 120 06739US of

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	ВА	Fujun He et al. "WPT-SVMs Based Approach for Fault Detection of Valves in Reciprocating Pumps", Proceedings of the American Control Conference, Anchorage, AK, May 8-10, 2002, Pp. 4566-4570.	
·	ВВ	Jiang Wanlu et al., "Applying Multiresolution Analysis for Processing of Hydraulic Pump Fault Signal", Pp. 1-5.	
	вс	Wang et al., "The Fault Character of the Motors Identified Based on Wavelet Transform", November 2-5, 2003, Proceedings of the Second International Conference on Machine Learning and Cybernetics, Xi'an Pp. 2394-2398.	
	BD	Mallat et al., "Singularity Detection and Processing with Wavelets", March 1992, IEEE Transactions on Information Theory, Vol. 38, No. 2, Pp. 617-643.	

Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant,

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. Tapplicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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